

October 18, 2012

Duke Energy Miami Fort Generating Station 11021 Brower Road North Bend, OH 45052

Attention: Ms. Tara Thomas

**Environmental Coordinator** 

Re: Results – October 2012
Low-Level Mercury Sampling
Miami Fort Generating Station
North Bend, Ohio

In accordance with your request, URS prepared the following letter report transmitting low-level mercury test results for samples collected at the Miami Fort Generating Station located in North Bend, Ohio.

The scope of work involved the sampling of intake and discharge waters from the following sources and analysis of those samples for low-level mercury.

- 1. River Intake
- 2. Station 601 (WWT Influent)
  [Samples were collected at this station one detention time (approximately 14 hours as specified by Duke Energy) before samples collected at Outfall 608]
- 3. Outfall 608 (WWT Effluent)
  [Samples were collected at this outfall one detention time (approximately 14 hours as specified by Duke Energy) after samples collected at station 601]
- 4. Outfall 002 (Pond B Discharge)

Each sample was collected following the required Method 1669: Sampling Ambient Water for Determination of Trace Metals at EPA Water Quality Criteria Levels (Sampling Method) and analyzed by Method 1631. At the request of Duke Energy, a dissolved low-level mercury sample was collected by Method 1669 from Outfall 608 and analyzed by Method 1631. The collected dissolved sample was filtered at the laboratory utilizing 0.45 micron filtration. Also at the request of Duke Energy, total metal mercury sample aliquots (preserved) from Station 601 (Unit 7 and 8) were used to have the laboratory pipet off and prepare the supernatant layer of the samples (leaving behind as much of the settled solids as possible) for analysis by Method 7470A.

Field staff from URS' Cincinnati office conducted the sampling and TestAmerica Laboratories Inc. located in North Canton, Ohio performed the analytical procedures. The analytical procedures included the analyses of a collected sample and duplicate sample



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(duplicates collected at Outfall 608 and Outfall 002), field blank (field blanks collected at the River Intake, Outfall 608, and Outfall 002), and trip blank.

The results from the October 1 and 2, 2012 sampling events are presented in the attached Table 1. A copy of the laboratory report is enclosed with this letter.

--ooOoo--

URS is pleased to provide continued assistance to Duke Energy in the execution of their environmental monitoring requirements. If there are any questions regarding the content of this report, please do not hesitate to contact the undersigned.

Sincerely,

**URS** Corporation

Michael A. Wagner Project Manager

Dennis R. Connair, C.P.G.

Principal

MAW/DPC/Duke Energy-MFS LL Hg 2012 Job No. 14950516

TABLE 1

ANALYTICAL RESULTS
LOW-LEVEL MERCURY
RIVER INTAKE, STATION 601, OUTFALL 608, AND OUTFALL 002 (POND B)

## DUKE ENERGY - MIAMI FORT STATION NORTH BEND, OHIO

		Date Sa	ampled / Results	(ng/L, parts per t	crillion)	
Sample ID	1/3-4/2012	2/2-3/2012	3/1-2/2012	4/2-3/2012	5/1-2/2012	6/5-6/2012
River Intake	7.9	6.1	3.9	4.0	3.9	2.2
Station 601 (7)	360,000	100,000	1,300,000	85,000	590,000	180,000
Station 601 (7)*	570	6,000	54,000	68,000	110,000	670
Station 601 (7)* [duplicate]	200	Not Collected	55,000	66,000	110,000	Not Collected
Station 601 (8)	210,000	68,000	830,000	310,000	Off Line	140,000
Station 601 (8)*	420	5,300	110,000	75,000	Off Line	1,000
Station 601 (8)*[duplicate]	Not Collected	3,500	Not Collected	Not Collected	Off Line	880
Outfall 608	60	89	48	120	170	210
Outfall 608 [duplicate]	65	85	49	120	200	200
Outfall 608 [dissolved, 0.45 micron]	2.9	26	1.6 H	0.53 B	61	64
APB-002	3.2	3.7	2.9	4.8	4.2	2.7
APB-002 [duplicate]	3.3	3.5	3.6	4.6	4.0	2.5
Field Blank (RI-FB)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Field Blank (WWT-FB)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Field Blank (AP-FB)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trip Blank	< 0.50	< 0.50	<0.50	<0.50	< 0.50	< 0.50

Samples collected by URS. Samples analyzed by TestAmerica of North Canton, Ohio.

Sampling times are noted within the associated laboratory report for each collected sample

B = Compound was found in blank and sample

<sup>\* =</sup> Total mercury analysis utilizing Method 7470A [results converted from ug/L (parts per billion) to ng/L]. The aqueous layer of the sample was pipetted off and prepared, with care to leave behind as much of the settled solids as possible.

H = Sample was prepped or analyzed beyond the specified holding time

TABLE 1 (continued)

		Date S	ampled / Results (	(ng/L, parts per t	rillion)	
ample ID	7/5-6/2012	8/1-2/2012	9/4-5/2012	10/1-2/2012	11/x/2012	12/x/2012
River Intake	1.6	1.6	1.1	2.5^		
Station 601 (7)	240,000	360,000	230,000	400,000		
Station 601 (7)*	8,100 B	1,200	2,000	21,000		
Station 601 (7)* [duplicate]	6,400 B	890	Not Collected	19,000		
Station 601 (8)	460,000	260,000	320,000	420,000		
Station 601 (8)*	10,000 B	<200	670	8,500		
Station 601 (8)*[duplicate]	Not Collected	Not Collected	380	Not Collected		
Outfall 608	240	78	9.5 / 49**	300		
Outfall 608 [duplicate]	220	82	10 / 46**	300		
Outfall 608 [dissolved, 0.45 micron]	29 H	19	7.5	6.6		
APB-002	2.5	2.1	3.8	2.4		
APB-002 [duplicate]	2.5	2.0	4.1	2.5		
Field Blank (RI-FB)	< 0.50	< 0.50	1.2	1.9^		
Field Blank (WWT-FB)	< 0.50	< 0.50	<0.50/<0.50**	< 0.50		
Field Blank (AP-FB)	< 0.50	< 0.50	< 0.50	< 0.50		
Trip Blank	<0.50	< 0.50	<0.50 / <0.50**	<0.50		

Samples collected by URS

Samples analyzed by TestAmerica of North Canton, Ohio

Sampling times are noted within the associated laboratory report for each collected sample.

B = Compound was found in blank and sample

<sup>\* =</sup> Total mercury analysis utilizing Method 7470A [results converted from ug/L (parts per billion) to ng/L]. The aqueous layer of the sample was pipetted off and prepared, with care to leave behind as much of the settled solids as possible.

<sup>\*\* =</sup> Outfall 608 re-sampled 9/30/2012 at request of Duke Energy.

 $<sup>\</sup>Lambda$  = The closing CCB failed high: Instrument related QC exceeds the control limit.



THE LEADER IN ENVIRONMENTAL TESTING

## **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Canton 4101 Shuffel Street NW North Canton, OH 44720 Tel: (330)497-9396

TestAmerica Job ID: 240-15867-1

Client Project/Site: Duke MF LL Hg 2012 - J12100116

#### For:

Duke Energy Corporation 139 East Fourth Street Cincinnati, Ohio 45202

Attn: Ms. Sue Wallace

Denise Poll
Authorized for release by:

10/17/2012 3:33:35 PM

Denise Pohl

Project Manager II

denise.pohl@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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### **Definitions/Glossary**

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

#### **Qualifiers**

#### Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
۸	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
F	MS or MSD exceeds the control limits

### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
<del>\tilde{\pi}</del>	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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#### **Case Narrative**

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

Job ID: 240-15867-1

**Laboratory: TestAmerica Canton** 

Narrative

#### **CASE NARRATIVE**

Client: Duke Energy Corporation

Project: Duke MF LL Hg 2012 - J12100116

Report Number: 240-15867-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

The samples were received on 10/03/2012; the samples arrived in good condition and properly preserved. The temperature of the cooler at receipt was 19.8 C.

#### **DISSOLVED LOW LEVEL MERCURY**

Sample 608 WWT DISS (240-15867-12) was analyzed for dissolved low level mercury in accordance with EPA Method 1631E. The samples were prepared on 10/11/2012 and analyzed on 10/15/2012.

Mercury failed the recovery criteria high for the MS/MSD of sample 180-15046-1 in batch 240-61323.

Refer to the QC report for details.

No other difficulties were encountered during the Low Level Mercury analysis.

All other quality control parameters were within the acceptance limits.

#### **TOTAL MERCURY**

Samples 601 (7) WWT TOT (240-15867-2), 601 (7) WWT TOT DUP (240-15867-3) and 601 (8) WWT TOT (240-15867-5) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 10/10/2012 and analyzed on 10/12/2012

TestAmerica Job ID: 240-15867-1

TestAmerica Canton

10/17/2012

#### **Case Narrative**

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

#### Job ID: 240-15867-1 (Continued)

#### **Laboratory: TestAmerica Canton (Continued)**

and 10/15/2012.

Samples 601 (7) WWT TOT (240-15867-2)[5X] and 601 (7) WWT TOT DUP (240-15867-3)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 7470A: Per client instructions, the aqueous layer of the sample was pipetted off and prepared for samples 601 (7) WWT TOT, 601 (7) WWT TOT DUP, 601 (8) WWT TOT with care to leave behind as much of the settled solids as possible.

No other difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

#### **LOW LEVEL MERCURY**

Samples 601 (7) WWT (240-15867-1), 601 (8) WWT (240-15867-4), RI FB (240-15867-6), RI (240-15867-7), TRIP BLANK (240-15867-8), 608 WWT FB (240-15867-9), 608 WWT (240-15867-10), 608 WWT DUP (240-15867-11), OUTFALL 002 FB (240-15867-13), OUTFALL 002 (240-15867-14) and OUTFALL 002 DUP (240-15867-15) were analyzed for Low Level Mercury in accordance with EPA Method 1631E. The samples were prepared on 10/11/2012 and 10/12/2012 and 10/12/2012 and 10/15/2012.

Mercury failed the recovery criteria high for the MSD of sample RIMSD (240-15867-7) in batch 240-61323.

Refer to the QC report for details.

Samples 601 (7) WWT (240-15867-1)[100000X], 601 (8) WWT (240-15867-4)[100000X], 608 WWT (240-15867-10)[80X] and 608 WWT DUP (240-15867-11)[80X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Method(s) 1631E: The closing CCB failed high. Due to insufficient sample volume, the MS/MSD's will be reported for RI.

Method(s) 1631E: The closing CCB failed high. Due to insufficient sample volume and an instrument failure, samples RI, RI FB are reported.

No other difficulties were encountered during the Low Level Mercury analyses.

All other quality control parameters were within the acceptance limits.

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### **Method Summary**

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL NC
7470A	Mercury (CVAA)	SW846	TAL NC

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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## **Sample Summary**

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-15867-1	601 (7) WWT	Water	10/01/12 17:15	10/03/12 09:00
240-15867-2	601 (7) WWT TOT	Water	10/01/12 17:20	10/03/12 09:00
240-15867-3	601 (7) WWT TOT DUP	Water	10/01/12 17:25	10/03/12 09:00
240-15867-4	601 (8) WWT	Water	10/01/12 17:30	10/03/12 09:00
240-15867-5	601 (8) WWT TOT	Water	10/01/12 17:35	10/03/12 09:00
240-15867-6	RI FB	Water	10/01/12 17:45	10/03/12 09:00
240-15867-7	RI	Water	10/01/12 17:50	10/03/12 09:00
240-15867-8	TRIP BLANK	Water	10/01/12 00:00	10/03/12 09:00
240-15867-9	608 WWT FB	Water	10/02/12 08:45	10/03/12 09:00
240-15867-10	608 WWT	Water	10/02/12 08:50	10/03/12 09:00
240-15867-11	608 WWT DUP	Water	10/02/12 08:55	10/03/12 09:00
240-15867-12	608 WWT DISS	Water	10/02/12 09:00	10/03/12 09:00
240-15867-13	OUTFALL 002 FB	Water	10/02/12 09:10	10/03/12 09:00
240-15867-14	OUTFALL 002	Water	10/02/12 09:15	10/03/12 09:00
240-15867-15	OUTFALL 002 DUP	Water	10/02/12 09:20	10/03/12 09:00

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TestAmerica Job ID: 240-15867-1

Client Sample ID: 601 (7) V	VWT				Lab	Sample II	D: 240-15867-1
Analyte	Result	Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Mercury	400000		50000	ng/L	100000	1631E	Total/NA
Client Sample ID: 601 (7) V	VWT TOT				Lab	Sample II	D: 240-15867-2
Analyte	Result	Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Mercury	21		1.0	ug/L	5	7470A	Total/NA
Client Sample ID: 601 (7) V	VWT TOT DUP	ı			Lab	Sample II	D: 240-15867-3
Analyte	Result	Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Mercury	19		1.0	ug/L		7470A	Total/NA
Client Sample ID: 601 (8) V	VWT				Lab	Sample II	D: 240-15867-4
Analyte	Result	Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Mercury	420000		50000	ng/L	100000	1631E	Total/NA
Client Sample ID: 601 (8) V	WWT TOT				Lab	Sample II	D: 240-15867-5
Analyte	Pocult	Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Mercury	8.5	<u>Quanner</u>	0.20	ug/L		7470A	Total/NA
Client Comple ID: DI ED					l ab	Commis II	2. 240 45967 6
Client Sample ID: RI FB					Lab	Sample II	D: 240-15867-6
Analyte		Qualifier	RL	Unit	Dil Fac D		Prep Type
Mercury	1.9	۸	0.50	ng/L	1	1631E	Total/NA
Client Sample ID: RI					Lab	Sample II	D: 240-15867-7
Analyte		Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Mercury	2.5	^	0.50	ng/L	1	1631E	Total/NA
Client Sample ID: TRIP BL	ANK				Lab	Sample II	D: 240-15867-8
No Detections							
Client Sample ID: 608 WW	T FB				Lab	Sample II	D: 240-15867-9
No Detections							
Client Sample ID: 608 WW	Т				Lab S	Sample ID	: 240-15867-10
Analyte	Result	Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Mercury	300		40	ng/L	80	1631E	Total/NA
Client Sample ID: 608 WW	T DUP				Lab	Sample ID	: 240-15867-11
Analyte	Result	Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Mercury	300		40	ng/L	80	1631E	Total/NA
Client Sample ID: 608 WW	T DISS				Lab S	Sample ID	: 240-15867-12
Analyte	Result	Qualifier	RL	Unit	Dil Fac D	Method	Prep Type
Mercury	6.6		0.50	ng/L		1631E	Dissolved

### **Detection Summary**

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

Client Sample ID: OUTFALL 002 FB

TestAmerica Job ID: 240-15867-1

Lab Sample ID: 240-15867-13

No Detections

Client Sample ID: OUTFALL 002 Lab Sample ID: 240-15867-14

 Analyte
 Result
 Qualifier
 RL
 Unit
 Dil Fac
 D
 Method
 Prep Type

 Mercury
 2.4
 0.50
 ng/L
 1
 1 631E
 Total/NA

Client Sample ID: OUTFALL 002 DUP

Lab Sample ID: 240-15867-15

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Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Client Sample ID: 601 (7) WWT

Date Collected: 10/01/12 17:15 Date Received: 10/03/12 09:00

Lab Sample ID: 240-15867-1

Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte Result Qualifier RLUnit D Prepared Analyzed Dil Fac Mercury 400000 50000 ng/L 10/11/12 11:02 10/15/12 13:42 100000

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Client Sample ID: 601 (7) WWT TOT Lab Sample ID: 240-15867-2

Date Collected: 10/01/12 17:20 Matrix: Water

Date Received: 10/03/12 09:00

Method: 7470A - Mercury (CVAA)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	21		1.0	ug/L		10/10/12 11:45	10/15/12 16:19	5

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Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Client Sample ID: 601 (7) WWT TOT DUP

Lab Sample ID: 240-15867-3

Date Collected: 10/01/12 17:25 Matrix: Water

Date Received: 10/03/12 09:00

Method: 7470A - Mercury (CVAA)							
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	19	1.0	ug/L		10/10/12 11:45	10/15/12 16:21	5

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Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Client Sample ID: 601 (8) WWT

Lab Sample ID: 240-15867-4 Date Collected: 10/01/12 17:30 Matrix: Water

Date Received: 10/03/12 09:00

Method: 1631E - Mercury, Low Level (CVAFS)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	420000		50000	ng/L		10/11/12 11:02	10/15/12 13:51	100000

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Client Sample ID: 601 (8) WWT TOT Lab Sample ID: 240-15867-5

Date Collected: 10/01/12 17:35 Matrix: Water

Date Received: 10/03/12 09:00

Method: 7470A - Mercury (CVAA)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	8.5		0.20	ug/L		10/10/12 11:45	10/12/12 12:09	1

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Client Sample ID: RI FB Lab Sample ID: 240-15867-6

Date Collected: 10/01/12 17:45 Matrix: Water

Date Received: 10/03/12 09:00

Method: 1631E - Mercury, Low Level (CVAFS)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	1.9	^	0.50	ng/L		10/11/12 11:02	10/12/12 19:15	1

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Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Client Sample ID: RI

Lab Sample ID: 240-15867-7

Date Collected: 10/01/12 17:50 Matrix: Water

Date Received: 10/03/12 09:00

Method: 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result (	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	2.5	^	0.50	ng/L		10/11/12 11:02	10/12/12 19:24	1	

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Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-15867-8

Date Collected: 10/01/12 00:00 Matrix: Water

Date Received: 10/03/12 09:00

Method: 1631E - Mercury, Low Level (CVAFS)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	0.50	U	0.50	ng/L		10/11/12 11:02	10/15/12 07:52	1

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Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Client Sample ID: 608 WWT FB Lab Sample ID: 240-15867-9

Date Collected: 10/02/12 08:45 Matrix: Water

Date Received: 10/03/12 09:00

Method: 1631E - Mercury, Low Level (CVAFS)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.50	U	0.50	ng/L		10/12/12 15:00	10/15/12 15:16	1

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Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Client Sample ID: 608 WWT Lab Sample ID: 240-15867-10

Date Collected: 10/02/12 08:50 Matrix: Water

Date Received: 10/03/12 09:00

Method: 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result Qualifier	· RL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	300	40	ng/L		10/11/12 11:02	10/15/12 08:01	80		

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Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

Client Sample ID: 608 WWT DUP

TestAmerica Job ID: 240-15867-1

Lab Sample ID: 240-15867-11

Matrix: Water

Date Collected: 10/02/12 08:55

Date Received: 10/03/12 09:00

Method: 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	300		40	ng/L		10/11/12 11:02	10/15/12 08:09	80	

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

Method: 1631E - Mercury, Low Level (CVAFS) - Dissolved

TestAmerica Job ID: 240-15867-1

Client Sample ID: 608 WWT DISS

Lab Sample ID: 240-15867-12

Date Collected: 10/02/12 09:00

Date Received: 10/03/12 09:00

Lab Sample ID. 240-15667-12

Matrix: Water

Date Received: 10/03/12 09:00

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac

 Mercury
 6.6
 0.50
 ng/L
 10/11/12 11:02
 10/15/12 09:09
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Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

Client Sample ID: OUTFALL 002 FB

TestAmerica Job ID: 240-15867-1

Lab Sample ID: 240-15867-13

Matrix: Water

Date Collected: 10/02/12 09:10 Date Received: 10/03/12 09:00

Method: 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.50	U	0.50	ng/L		10/11/12 11:02	10/15/12 08:18	1	

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Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

**Client Sample ID: OUTFALL 002** 

TestAmerica Job ID: 240-15867-1

Lab Sample ID: 240-15867-14

Matrix: Water

Date Collected: 10/02/12 09:15 Date Received: 10/03/12 09:00

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte Result Qualifier RLUnit D Prepared Analyzed Dil Fac 0.50

Mercury 2.4 ng/L 10/11/12 11:02 10/15/12 08:26

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Client Sample ID: OUTFALL 002 DUP

Lab Sample ID: 240-15867-15

Date Collected: 10/02/12 09:20 Matrix: Water

Date Received: 10/03/12 09:00

Method: 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	2.5	0.50	ng/L		10/11/12 11:02	10/15/12 08:35	1		

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Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 240-60982/1-A Client Sample ID: Method Blank

**Matrix: Water** 

Analyte

Mercury

**Analysis Batch: 61323** 

Prep Type: Total/NA

Prep Batch: 60982

Prep Batch: 60982

Prep Batch: 60982

Prep Type: Total/NA

Client Sample ID: Method Blank

Prep Batch: 61284

Result Qualifier Analyte

RL Unit Dil Fac D Prepared Analyzed 0.50 ng/L 10/11/12 11:02 10/15/12 09:39 Mercury 0.50 U

Lab Sample ID: LCS 240-60982/2-A Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA Prep Batch: 60982

**Analysis Batch: 61323** 

LCS LCS Spike Added Result Qualifier Unit %Rec Limits 5.00 4.68 ng/L 94 77 - 123

Lab Sample ID: 240-15867-7 MS Client Sample ID: RI

**Matrix: Water** Prep Type: Total/NA

Analysis Batch: 61323

Spike MS MS %Rec. Sample Sample Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits 2.5 5.00 6.59 82 Mercury ng/L

Lab Sample ID: 240-15867-7 MSD Client Sample ID: RI Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 61323** 

Sample Sample MSD MSD Spike %Rec. RPD Analyte Result Qualifier Added Result Qualifier %Rec Limits RPD Unit Limit 2.5 5.00 6.66 133 Mercury ng/L 71 125

Lab Sample ID: MB 240-61284/1-A Client Sample ID: Method Blank

**Matrix: Water** 

**Analysis Batch: 61522** 

MR MR

РВ РВ

мв мв

Result Qualifier RL Unit D Dil Fac Analyte Prepared Analyzed 0.50 10/12/12 15:00 10/15/12 14:58 Mercury 0.50 Ū ng/L

Lab Sample ID: LCS 240-61284/2-A Client Sample ID: Lab Control Sample Prep Type: Total/NA

**Matrix: Water** 

**Analysis Batch: 61522** Prep Batch: 61284 Spike LCS LCS

Added Analyte Result Qualifier Unit D %Rec Limits 77 - 123 5.00 Mercury 5 95 ng/L 119

Lab Sample ID: PB 240-60981/1-B PB

**Matrix: Water** 

Analysis Batch: 61323

**Prep Type: Dissolved** 

Prep Batch: 60982

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Mercury 0.50 U 0.50 ng/L 10/11/12 11:02 10/15/12 08:44

### **QC Sample Results**

MB MB

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-60766/1-A

Lab Sample ID: LCS 240-60766/2-A

**Matrix: Water** 

**Matrix: Water** 

Analyte

Mercury

Analyte

Mercury

Analysis Batch: 61184

Analysis Batch: 61184

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 60766

Result Qualifier RL Unit D Prepared Dil Fac Analyzed 0.20 10/10/12 11:45 0.20 U ug/L 10/12/12 11:43

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 60766

Spike LCS LCS Result Qualifier Limits Unit %Rec

Added 5.00 5.24 ug/L 105 81 - 123

> TestAmerica Canton 10/17/2012

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TestAmerica Job ID: 240-15867-1

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

#### **Metals**

### Prep Batch: 60766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15867-2	601 (7) WWT TOT	Total/NA	Water	7470A	
240-15867-3	601 (7) WWT TOT DUP	Total/NA	Water	7470A	
240-15867-5	601 (8) WWT TOT	Total/NA	Water	7470A	
LCS 240-60766/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-60766/1-A	Method Blank	Total/NA	Water	7470A	

#### Prep Batch: 60982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15867-1	601 (7) WWT	Total/NA	Water	1631E	
240-15867-4	601 (8) WWT	Total/NA	Water	1631E	
240-15867-6	RI FB	Total/NA	Water	1631E	
240-15867-7	RI	Total/NA	Water	1631E	
240-15867-7 MS	RI	Total/NA	Water	1631E	
240-15867-7 MSD	RI	Total/NA	Water	1631E	
240-15867-8	TRIP BLANK	Total/NA	Water	1631E	
240-15867-10	608 WWT	Total/NA	Water	1631E	
240-15867-11	608 WWT DUP	Total/NA	Water	1631E	
240-15867-12	608 WWT DISS	Dissolved	Water	1631E	
240-15867-13	OUTFALL 002 FB	Total/NA	Water	1631E	
240-15867-14	OUTFALL 002	Total/NA	Water	1631E	
240-15867-15	OUTFALL 002 DUP	Total/NA	Water	1631E	
LCS 240-60982/2-A	Lab Control Sample	Total/NA	Water	1631E	
MB 240-60982/1-A	Method Blank	Total/NA	Water	1631E	
PB 240-60981/1-B PB	Method Blank	Dissolved	Water	1631E	

### Analysis Batch: 61184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15867-5	601 (8) WWT TOT	Total/NA	Water	7470A	60766
LCS 240-60766/2-A	Lab Control Sample	Total/NA	Water	7470A	60766
MB 240-60766/1-A	Method Blank	Total/NA	Water	7470A	60766

#### Prep Batch: 61284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15867-9	608 WWT FB	Total/NA	Water	1631E	
LCS 240-61284/2-A	Lab Control Sample	Total/NA	Water	1631E	
MB 240-61284/1-A	Method Blank	Total/NA	Water	1631E	

### Analysis Batch: 61323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15867-1	601 (7) WWT	Total/NA	Water	1631E	60982
240-15867-4	601 (8) WWT	Total/NA	Water	1631E	60982
240-15867-6	RI FB	Total/NA	Water	1631E	60982
240-15867-7	RI	Total/NA	Water	1631E	60982
240-15867-7 MS	RI	Total/NA	Water	1631E	60982
240-15867-7 MSD	RI	Total/NA	Water	1631E	60982
240-15867-8	TRIP BLANK	Total/NA	Water	1631E	60982
240-15867-10	608 WWT	Total/NA	Water	1631E	60982
240-15867-11	608 WWT DUP	Total/NA	Water	1631E	60982
240-15867-12	608 WWT DISS	Dissolved	Water	1631E	60982
240-15867-13	OUTFALL 002 FB	Total/NA	Water	1631E	60982
240-15867-14	OUTFALL 002	Total/NA	Water	1631E	60982
240-15867-15	OUTFALL 002 DUP	Total/NA	Water	1631E	60982

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## **QC Association Summary**

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

### **Metals (Continued)**

### **Analysis Batch: 61323 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-60982/2-A	Lab Control Sample	Total/NA	Water	1631E	60982
MB 240-60982/1-A	Method Blank	Total/NA	Water	1631E	60982
PB 240-60981/1-B PB	Method Blank	Dissolved	Water	1631E	60982

### Analysis Batch: 61444

Lab Sample ID	Client Sample ID  601 (7) WWT TOT 601 (7) WWT TOT DUP	Prep Type	Matrix	Method	Prep Batch
240-15867-2	601 (7) WWT TOT	Total/NA	Water	7470A	60766
240-15867-3	601 (7) WWT TOT DUP	Total/NA	Water	7470A	60766

#### **Analysis Batch: 61522**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-15867-9	608 WWT FB	Total/NA	Water	1631E	61284
LCS 240-61284/2-A	Lab Control Sample	Total/NA	Water	1631E	61284
MB 240-61284/1-A	Method Blank	Total/NA	Water	1631E	61284

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Project/Site: Duke MF LL Hg 2012 - J12100116

Client Sample ID: 601 (7) WWT

Date Collected: 10/01/12 17:15 Date Received: 10/03/12 09:00 Lab Sample ID: 240-15867-1

Matrix: Water

Matrix: Water

Matrix: Water

Matrix: Water

**Matrix: Water** 

**Matrix: Water** 

TAL NC

İ		Batch	Batch		Dilution	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
	Total/NA	Prep	1631E			60982	10/11/12 11:02	AS	TAL NC
İ	Total/NA	Analysis	1631E		100000	61323	10/15/12 13:42	AS	TAL NC

Client Sample ID: 601 (7) WWT TOT

Lab Sample ID: 240-15867-2

Dilution

Factor

5

Run

Date Collected: 10/01/12 17:20

Date Received: 10/03/12 09:00

**Prep Type** 

Total/NA

Total/NA

Batch

Type

Prep

Analysis

Batch

Method

7470A

7470A

Batch	Prepared			
Number	or Analyzed	Analyst	Lab	
60766	10/10/12 11:45	SG	TAL NC	

DH

10/15/12 16:19

Client Sample ID: 601 (7) WWT TOT DUP

Lab Sample ID: 240-15867-3

61444

Date Collected: 10/01/12 17:25

Date Received: 10/03/12 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			60766	10/10/12 11:45	SG	TAL NC
Total/NA	Analysis	7470A		5	61444	10/15/12 16:21	DH	TAL NC

Client Sample ID: 601 (8) WWT Lab Sample ID: 240-15867-4

Date Collected: 10/01/12 17:30

Date Received: 10/03/12 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			60982	10/11/12 11:02	AS	TAL NC
Total/NA	Analysis	1631E		100000	61323	10/15/12 13:51	AS	TAL NC

Client Sample ID: 601 (8) WWT TOT

Lab Sample ID: 240-15867-5

Date Collected: 10/01/12 17:35

Date Received: 10/03/12 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			60766	10/10/12 11:45	SG	TAL NC
Total/NA	Analysis	7470A		1	61184	10/12/12 12:09	DH	TAL NC

Client Sample ID: RI FB Lab Sample ID: 240-15867-6

Date Collected: 10/01/12 17:45

Date Received: 10/03/12 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			60982	10/11/12 11:02	AS	TAL NC
Total/NA	Analysis	1631E		1	61323	10/12/12 19:15	AS	TAL NC

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

Client Sample ID: RI

Lab Sample ID: 240-15867-7

Date Collected: 10/01/12 17:50 Matrix: Water

Date Received: 10/03/12 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			60982	10/11/12 11:02	AS	TAL NC
Total/NA	Analysis	1631E		1	61323	10/12/12 19:24	AS	TAL NC

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-15867-8

Date Collected: 10/01/12 00:00 Matrix: Water

Date Received: 10/03/12 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E		· <del></del> -	60982	10/11/12 11:02	AS	TAL NC
Total/NA	Analysis	1631E		1	61323	10/15/12 07:52	AS	TAL NC

Client Sample ID: 608 WWT FB Lab Sample ID: 240-15867-9

Date Collected: 10/02/12 08:45

Matrix: Water

Date Received: 10/03/12 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			61284	10/12/12 15:00	AS	TAL NC
Total/NA	Analysis	1631E		1	61522	10/15/12 15:16	AS	TAL NC

Client Sample ID: 608 WWT Lab Sample ID: 240-15867-10

Date Collected: 10/02/12 08:50

Date Received: 10/03/12 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			60982	10/11/12 11:02	AS	TAL NC
Total/NA	Analysis	1631E		80	61323	10/15/12 08:01	AS	TAL NC

Client Sample ID: 608 WWT DUP Lab Sample ID: 240-15867-11

Date Collected: 10/02/12 08:55

Date Received: 10/03/12 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			60982	10/11/12 11:02	AS	TAL NC
Total/NA	Analysis	1631E		80	61323	10/15/12 08:09	AS	TAL NC

Client Sample ID: 608 WWT DISS

Lab Sample ID: 240-15867-12

Date Collected: 10/02/12 09:00 Matrix: Water

Date Received: 10/03/12 09:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Dissolved	Prep	1631E			60982	10/11/12 11:02	AS	TAL NC
Dissolved	Analysis	1631E		1	61323	10/15/12 09:09	AS	TAL NC

Matrix: Water

Matrix: Water

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

Client Sample ID: OUTFALL 002 FB

Lab Sample ID: 240-15867-13

Date Collected: 10/02/12 09:10 Date Received: 10/03/12 09:00

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			60982	10/11/12 11:02	AS	TAL NC
Total/NA	Analysis	1631E		1	61323	10/15/12 08:18	AS	TAL NC

Lab Sample ID: 240-15867-14

**Client Sample ID: OUTFALL 002** Date Collected: 10/02/12 09:15

**Matrix: Water** 

Batch Dilution Batch Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Prep Total/NA 1631E 60982 10/11/12 11:02 AS TAL NC Total/NA 1631E 61323 10/15/12 08:26 AS TAL NC Analysis 1

Client Sample ID: OUTFALL 002 DUP Lab Sample ID: 240-15867-15

Date Collected: 10/02/12 09:20

**Matrix: Water** 

Date Received: 10/03/12 09:00

Date Received: 10/03/12 09:00

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab 1631E 60982 10/11/12 11:02 TAL NC Total/NA Prep AS Total/NA 1631E 61323 10/15/12 08:35 TAL NC Analysis 1 AS

**Laboratory References:** 

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

## **Certification Summary**

Client: Duke Energy Corporation

Project/Site: Duke MF LL Hg 2012 - J12100116

TestAmerica Job ID: 240-15867-1

#### **Laboratory: TestAmerica Canton**

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
California	NELAC	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAC	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAC	5	200004	07-31-13
Kansas	NELAC	7	E-10336	01-31-13
Kentucky	State Program	4	58	11-16-12
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAC	5	039-999-348	12-31-12
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAC	2	OH001	06-30-13
New York	NELAC	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAC	3	68-00340	08-31-13
Texas	NELAC	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAC	3	460175	09-14-13
Washington	State Program	10	C971	01-12-13
West Virginia DEP	State Program	3	210	12-31-12
Wisconsin	State Program	5	999518190	08-31-13

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10/17/2012

HE LEADER IN ENVIRONMENTAL TESTING TestAmerica Laboratories, Inc **TestAmerica** Date Time: (12 (445) 900 Sample Specific Notes / Special Instructions: 7 of 2 000 FAL-0018 (1098) [0-3.12 Date/Time: Months Test America 101-10-5 Analyses Company: lompany: Sample Disposal ( A fee may be assessed if samples are retained longer than 1 mouth) Lab Contact: relephone: × × \*-× >< **X** <u>(1)</u> Other / (c) oldruge patoina Received in Laboratory by: Chain of Custody Record Unpres 4 4 U マ 4 2 weeks 3 weeks Received by: week 2 days RCRA \2AnZ HOsN day TAT if different from below HORN ЮH 12/495 □ NPDES Site Contact elephone: EONH †OSZH Date/Time:

| -OP-|Z|
| Date/Time Unknown Other: 12/01 λÁQ plies juauujpag Ż snoonby Y. 汉 7 **~** ş 94. 4394 λįγ TestAmerica Laboratory location: Regulatory program: 310 Sample Time Poison B 0880 fethod of Shipment/Carrier: 0000 0930 835 01/0 10-2-12 0845 Client Project Manager: Shipping/Tracking No: Sample Date elephones Company: Email: Skin Irritant 4014 8 2/55 pecial Instructions/QC Requirements & Comments 1 OUTERL DOS OUTFAIL OBS CITY/Sate/Zin:
N.BEND OH: 0 Flammable Mr Lite Sample Identification 0 Sure Grand OK WWT Mian Fort NW F NWY Possible Bazard Identification 12 W W OUTEALL 1 DIK reject Num 20 00 00

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were received with bubble >6 mm in diameter. (Notify PM)

Sample(s)	16. SAMPLE	PRESERVATION	- Cample Descipi	
=recommended-pH-level(s)=1	Nitric-Acid-Lot#-03-1-51-2-HNO3Su	were further preserved i	n Sampie Receivi edium-Hydroxide	ng to meet Tot#121809
=NaOH;-Hydrochloric-Acid-I	Lot#-04191-1-HCl;-Sodium-Hydroxi	de-and-Zine-Acetate-Lot#-100108-(6	SF3-COO)2-ZN/N	a⊚H;=What===
time was preservative added	l to sample(s)?		,	
<u>Client ID</u>		<u>oH</u>	<u>Date</u>	<u>Initials</u>
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0 1 4				
Cooler#	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR#	Coolant
			<u> </u>	